

In The Claims

Please amend the claims as follows:

ClaimsWHAT IS CLAIMED IS:

1. (CURRENTLY AMENDED) Method for manufacturing ceramic parts with a certain porosity by sintering using microwaves, the materials to be sintered being arranged in a vessel, said method comprising:

~~characterized in that~~

~~introducing the, via said microwaves, introduce~~ sintering energy into the materials to be sintered via electromagnetic waves in the range of vacuum wavelengths between 5 cm – 20 cm in multimode having an electromagnetic power of up to one kilowatt, and

~~wherein,~~ besides being built from primary materials for the structure of the vessel, the vessel is built from a secondary material which comprises, ~~in particular, at least one mixture of or mixed crystals material selected from the group consisting of:~~ non-metallic materials, para-magnetic materials, ferro-magnetic materials and ~~or~~ antiferromagnetic materials.

2. (CURRENTLY AMENDED) Method of claim 1, ~~characterized in that~~ wherein said wavelength range of the electromagnetic waves is ~~from~~ between 11-13 cm.

3. (CURRENTLY AMENDED) Method of claim 1 ~~or 2, characterized in that~~ wherein said ceramic parts have a porosity of between 0-50 percent by volume.

4. (CURRENTLY AMENDED) Method of claim 3, ~~characterized in that~~ wherein said porosity is between 10 – 30 % by volume, the porosity being controllable through the temperature pattern.

5. (CURRENTLY AMENDED) Method of ~~at least one of claims 1 to 4,~~
characterized in that ~~the~~wherein said ceramic parts are infiltrated with a glass material to produce the final strength.
6. (CURRENTLY AMENDED) Method of ~~at least one of claims 1 to 5,~~
characterized in that ~~the~~wherein said ceramic parts are sintered to a defined final density of at least 80%, ~~preferably at least 90%, and most preferably 98%~~ of the theoretical density of the respective material.
7. (CURRENTLY AMENDED) Method of ~~at least one of claims 1 to 6,~~
characterized in that ~~the~~wherein said ceramic parts are dental restorations.
8. (CURRENTLY AMENDED) Method of ~~at least one of claims 1 to 7,~~
characterized in that ~~wherein said dental restorations ceramic frame parts~~ are veneered using suitable ~~a~~ glass materials ~~such as feldspar glass, lithium disilicate glass or fluoroapatite glass.~~
9. (CURRENTLY AMENDED) Method of ~~at least one of claims 1 to 8,~~
characterized in that ~~the~~wherein said materials ~~used for producing dental ceramic restorations preferably is selected from the group consisting consist of:~~ Al_2O_3 , Spinell, Ce- or Y-stabilized ZrO_2 , and (e.g. TZP tetragonal zirconia polycrystal, PSZ partial stabilized zirconia) or mixtures thereof of these materials.
10. (CURRENTLY AMENDED) Method of ~~at least one of claims 1 to 9 for of~~
manufacturing full ceramic dental restorations ~~form from~~ dental ceramic masses,
~~such as feldspar glass, lithium disilicate glass or fluorapatite glass, said with a~~
certain porosity by sintering using microwaves, said ceramic masses that are to
be sintered being arranged in a vessel, said method comprising:

introducing, via said microwaves, sintering energy into said ceramic masses to be sintered via electromagnetic waves in the range of vacuum wavelengths between 5 cm – 20 cm in multimode having an electromagnetic power of up to one kilowatt, wherein, besides being built from primary materials for the structure of the vessel, the vessel is built from a secondary material which comprises at least one material selected from the group consisting of: non-

- metallic materials, para-magnetic materials, ferro-magnetic materials and antiferromagnetic materials ~~method of at least one of claims 1 to 10 being used for glazing full ceramic dental parts or, e.g., for pressed dental ceramic parts as a pressing oven or a preheating oven.~~
11. (CURRENTLY AMENDED) Vessel for manufacturing ceramic parts with a certain porosity by sintering using microwaves, ~~carrying out the method of one of claims 1 to 10~~, said vessel comprising a primary and a secondary material, ~~wherein said~~ characterized in that the secondary material comprises at least one material selected from the group consisting of: a non-metallic material, a para-magnetic material, a ferro-magnetic material and or an antiferromagnetic material.
 12. (CURRENTLY AMENDED) Vessel of claim 10, ~~characterized in that the~~ wherein said secondary material is ~~a mixture of para-, ferro- or antiferromagnetic materials such as, e.g., zincchromite (ZnCr₂O₄) with 0-99 percent by weight of zincite (zinc oxide ZnO).~~
 13. (CURRENTLY AMENDED) Vessel of claim 11 ~~or 12~~, ~~characterized in that, wherein,~~ to increase the dense sintering temperature, the secondary material further comprises ~~of the vessel includes a mixture of the material with a~~ refractory non-metallic material having a high transparency for super high frequency waves in a wide temperature range.
 14. (CURRENTLY AMENDED) Vessel of claim 13, ~~characterized in that the~~ wherein said refractory non-metallic secondary material having a high transparency for super high frequency waves is zinc oxide (ZnO).
 15. (CURRENTLY AMENDED) Vessel of ~~at least one of claims 11 to 14~~, further comprising ~~characterized by~~ a receiving portion ~~(26)~~ for receiving ~~the said~~ primary and secondary material to be sintered, said secondary material being provided at least partly around the receiving portion ~~(26)~~.
 16. (CURRENTLY AMENDED) Vessel of claim 15, ~~characterized in that the~~ wherein said receiving portion ~~(26)~~ is surrounded by at least one, ~~preferably a~~

plurality of secondary material elements ~~(32, 46)~~.

17. (CURRENTLY AMENDED) Vessel of ~~one of~~ claims 11 to 16, characterized in ~~that the~~ wherein said secondary material is surrounded by said primary material.
18. (CURRENTLY AMENDED) Vessel of ~~one of~~ claims 15 to 17, characterized in ~~that the~~ wherein said secondary material extends over the entire height of ~~the~~ said receiving portion ~~(26)~~.
19. (CURRENTLY AMENDED) Vessel of ~~one of~~ claims 16 to 18, characterized in ~~that the~~ wherein said secondary material elements ~~(46) are~~ is rod-shaped.
20. (CURRENTLY AMENDED) Vessel of ~~one of~~ claims 16 to 19, characterized in ~~that the~~ wherein said secondary material elements ~~(46) are~~ is divided regularly around the receiving portion ~~(26)~~.
21. (CURRENTLY AMENDED) Vessel of ~~one of~~ claims 16 to 20, characterized in ~~that the~~ wherein said secondary material elements ~~(46) are~~ is encapsulated in ~~particular with~~ said primary material.